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10/763,278	01/22/2004	Robert C. Michaels	S005 100101	6482

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EXAMINER

WIEKER, AMANDA FLYNN

ART UNIT PAPER NUMBER

3743

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/763,278	<b>Applicant(s)</b> MICHAELS, ROBERT C.	
	<b>Examiner</b> Amanda F. Wiekler	<b>Art Unit</b> 3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 10, 12-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,10 and 12-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/4/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riaboy in view of U.S. Patent Number 6,308,330 to Hollander et al.

Riaboy discloses a personal air purifier for attachment to a user's face and nose comprising: a filter medium (14) having a periphery with a shape adapted to circumscribe a continuous perimeter including at least the philtrum, the face posterior to the left alar groove, the dorsum of the nose and the face posterior to the right alar groove; an adhesive (16) bonded to an interior surface of the filter medium proximate the periphery to sealingly bond the peripheral shape to the perimeter on the face (see Figures 1 and 3). The filter medium encompasses a volume around the nose that provides a "non-restricted area greater than an area defined by the user's nostrils" (see column 2, lines 31-35). Riaboy does not specify that the air purifier have a plurality of slits about the periphery.

Hollander et al. disclose a personal air purifier, having a filter medium with an adhesive bonded to the peripheral edge of the filter medium. Hollander et al. disclose slits (14, 34) that extend through the peripheral edge [i.e., peripheral edge being that which has adhesive; see column 2, lines 44-59] of the purifier, to allow the mask to better adhere to the face and obtain a tight fit. Hollander et al. specify that the slits are substantially perpendicular to the periphery of

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the filter. Hollander et al. do not specify that the slits have a length less than the width of the adhesive.

It would have been obvious to one skilled in the art at the time the invention was made to have provided the air purifier disclosed by Riaboy with a plurality of slits about the periphery of the mask, as taught by Hollander et al., to allow the mask to better adhere to the face. Further, it would have been obvious to have provided the slits with a length less than the width of the adhesive, or any other desired length, to allow proper functioning of the device, as it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

3. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Riaboy in view of U.S. Patent Number 2,572,254 to Folberth.

Riaboy discloses a personal air purifier, having an adhesive tape (16) having a first periphery with a shape adapted to circumscribe a continuous perimeter including at least the philtrum, the face posterior to the left alar groove, the dorsum of the nose and the face posterior to the right alar groove; and a filter medium affixed at a second inner periphery of the adhesive tape, wherein the second periphery is inset from the first periphery and the adhesive tape bonds the first peripheral shape to the perimeter on the face and seals the filter medium. Riaboy does not disclose that filter medium include two "technical vents" and the second periphery comprises two apertures to retain the vents.

Folberth discloses a personal air purifier having two "technical vents" (at 14, 15) each incorporating a filter medium (12), wherein the filter medium is affixed at an inner periphery comprising two apertures (17, 18), to comprise a lightweight, effective filter.

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It would have been obvious to one skilled in the art at the time the invention was made to have provided the personal air purifier disclosed by Riaboy, wherein the filter medium is incorporated in two technical vents secured in two apertures, as taught by Folberth, to provide a light weight filter.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Riaboy in view of Hollander et al., in further view of U.S. Patent Number 5,875,775 to Nur et al.

Riaboy in view of Hollander et al. disclose the previously described air purifier, having a filter medium attached to an adhesive strip. Riaboy does not specify the material of the filter medium.

Nur et al. disclose a filter medium comprising a woven polymer fabric material, to trap particles above 0.3 microns. Nur et al. specify that filter medium is 99% effective.

It would have been obvious to one skilled in the art at the time the invention was made to have provided the personal air purifier disclosed by Riaboy in view of Hollander et al., wherein the filter medium is a woven polymer fabric material, for its effectiveness at trapping small particles.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Riaboy in view of Hollander et al., in further view of U.S. Patent Number 4,510,931 to Henderson et al.

Riaboy in view of Hollander et al. disclose the previously described air purifier, having a filter medium attached to an adhesive strip. Riaboy does not specify the material of the filter medium.

Henderson et al. disclose a filter medium comprising a membrane of ePTFE, to allow unhindered breathing through the filter.

It would have been obvious to one skilled in the art at the time the invention was made to have provided the personal air purifier disclosed by Riaboy in view of Hollander et al., wherein the filter medium is a membrane of ePTFE as taught by Henderson et al., to allow unhindered breathing through the filter.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Riaboy in view of Hollander et al., in further view of U.S. Patent Number 5,735,270 to Bayer.

Riaboy in view of Hollander et al. disclose the previously described air purifier, having a filter medium attached to an adhesive strip. Riaboy does not specify the material of the filter medium.

Bayer discloses a filter medium comprising non-woven polyester media, to allow sufficient deformation of the media, to conform to the wearer.

It would have been obvious to one skilled in the art at the time the invention was made to have provided the personal air purifier disclosed by Riaboy in view of Hollander et al., wherein the filter medium is non-woven polyester media, to allow sufficient deformation of the filter.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Riaboy in view of Hollander et al., in further view of U.S. Patent Number 6,409,806 to Jones et al.

Riaboy in view of Hollander et al. disclose the previously described air purifier, having a filter medium attached to an adhesive strip. Riaboy does not specify that the filter medium be a dielectric material that attracts micron-sized particles.

Jones et al. disclose a filter made of a filter medium comprising a dielectric material, to attract micron-sized particles. Jones et al. specify that the dielectric material enhance particle capture in mask filters.

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It would have been obvious to one skilled in the art at the time the invention was made to have provided the personal air purifier disclosed by Riaboy in view of Hollander et al., wherein the filter medium is a dielectric material, as taught by Jones et al., to enhance particle capture in the air purifier.

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Riaboy in view of Hollander et al., in further view of U.S. Patent Number 4,984,302 to Lincoln.

Riaboy in view of Hollander et al. disclose the previously described air purifier, having a filter medium attached to an adhesive strip. Riaboy does not specify that the purifier comprise a notch centrally located at the top of the periphery.

Lincoln discloses a personal air purifier, having a filter medium attached to an adhesive strip. A notch is provided at the center of the top periphery of the purifier to allow the device to substantially conform to a wearer's nose.

It would have been obvious to one skilled in the art at the time the invention was made to have provided the personal air purifier disclosed by Riaboy in view of Hollander et al., wherein the purifier has a notch at the center top periphery, as taught by Lincoln, to allow the device to substantially conform to a wearer.

#### *Response to Arguments*

9. Applicant's arguments filed 04 January 2005 have been fully considered but they are not persuasive.

10. On page 4 of the Remarks, Applicant argues that the combination of the Riaboy and Hollander et al. references (now applied to independent claim 1) is improper.

Initially, Applicant argues that the Hollander et al. reference discloses a full face mask, wherein the present invention is directed to a mask that specifically surrounds the nose.

The examiner notes that the Riaboy patent is the primary reference in this rejection, and is cited as showing “a personal air purifier for attachment to a user's face and nose comprising: a filter medium (14) having a periphery with a shape adapted to circumscribe a continuous perimeter including at least the philtrum, the face posterior to the left alar groove, the dorsum of the nose and the face posterior to the right alar groove”. The Hollander et al. reference is employed for its teaching of slits extending in the periphery of the air purifier, not for any teaching of shape or size of a mask.

Regardless, both the Riaboy and Hollander et al. references disclose an air purifier which circumscribes at least a continuous perimeter including at least the philtrum, the face posterior to the left alar groove, the dorsum of the nose and the face posterior to the right alar groove

11. Also on page 4, Applicant argues that the Hollander et al. reference discloses slits that may extend into the filter material. The examiner disagrees with this argument.

Applicant relies on a section of the Hollander et al. reference (column 5, lines 47-49) to support this argument. Initially, it is noted that the recitation that the slit “may extend into mask 8 if desired” (column 5, lines 47-49), is not a positive recitation of an element of the invention. As incorporated by the statement, the slit may similarly not extend into the mask. It cannot be assumed that the slit necessarily extends into the filter of the mask, simply because it may so extend, “if desired”.

A thorough examination of the Hollander et al. reference supports the examiner's position. See column 2, lines 40-60. Hollander et al. disclose that the “peripheral edge” of the



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mask includes a “pressure sensitive adhesive” for securing the mask to the user. Hollander et al. also specify that at least one slit “in the peripheral edge” of the mask allows the mask to tightly fit to the user’s face. Hollander et al. do not specify that the slit extends into the filter, but rather clearly state that the slit is “in” the peripheral edge, i.e., that edge which includes adhesive.

Similarly, referring to Figure 14, Hollander et al. disclose an attachment lip (40) coated with adhesive (at 50). As clearly shown in Figure 14, Hollander et al. show slits (34) that extend into the adhesive-coated lip (40), but not into the filter portion.

Lastly, it is noted that slits are not uncommon, in the application of an adhesive to a user. See U.S. Patent Number 5,392,773 to Bertrand, which also discloses slits (at 18) in the outer periphery of a personal air purifier, wherein the slits extend into the adhesive periphery, but not into the filter.

12. On page 4 of the Remarks, Applicant argues that the combination of the Riaboy and Folberth references (now applied to independent claim 10) is improper.

Applicant argues that Folberth teaches a frame with two apertures which is placed over a single filter pad (12) wherein the present invention is directed to an “integral adhesive tape with two technical vents comprising apertures housing separate filter elements attached to the adhesive tape”.

Initially, it is noted that claim 10 does not recite apertures “housing separate filter elements”. The claims are treated and rejected based on their basic claim language, not that language which is argued. Claim 10 requires “two technical vents each incorporating a filter medium affixed at a second periphery”.

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As described above (see paragraph 4), Folberth discloses two technical vents (at 14, 15) each incorporating a filter medium (12). The claim does not require that each vent incorporate separate or different filter mediums. The filter mediums are incorporated in two apertures (17, 18) at a “second” or inner periphery.

13. On page 5 of the Remarks, Applicant argues that the Lincoln reference does not disclose a notch at the top of the periphery for drawing the periphery adjacent the notch together at the bridge of the user’s nose.

The examiner disagrees. Based on the entirety of the Lincoln specification, including all Figures, the notch is consistently shown as being at the top of the periphery, and as such, is considered to be in this position when applied to the user’s face. Such location places the notch adjacent the tip and bridge of the user’s nose (toward the left in Figure 11B). Further, as evidenced by Bertrand, it is known to place a notch (at 18) adjacent the tip and bridge of a user’s nose, even on air purifiers that are worn under the nose of the user, as is the case of the Lincoln patent.

14. The remainder of Applicant’s Remarks states Applicant’s belief that the combination of references does not meet the claim limitations. The examiner has made every effort to address all of Applicant’s arguments above.

#### *Conclusion*

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).


Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda F. Wieker whose telephone number is 571-272-4794. The examiner can normally be reached on Monday-Thursday, 8:30 - 6:00 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on 571-272-4791. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Amanda F. Wieker  
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